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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/012,269	02/01/93	KWON	B

HM12/1003
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EXAMINER	
BRANNOCK,M	
ART UNIT	**PAPER NUMBER**
1646	39

DATE MAILED: 10/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/012,269	Kwon, BS
Examiner	**Group Art Unit**
Michael Brannock, Ph.D.	1646

☒ Responsive to communication(s) filed on *Jul 24, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-3 and 6-30* is/are pending in the applicat

Of the above, claim(s) *6-21 and 23-27* is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1, 22, and 28-30* is/are rejected.

☒ Claim(s) *2 and 3* is/are objected to.

☒ Claims *1-3 and 6-30* are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Status of Application: Claims and Amendments

1. Claims 1-3 and 6-30 are pending.

2. Claims 6-21, and 23-27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed in Paper No. 36, 7/24/00.

The traversal is on the grounds that the inventions of Groups I-V are related and a search of all the groups would not be a serious burden on the examiner. In particular, Applicant urges that the claims of Group I and the claims of Group V could be efficiently and effectively searched in a single search with no additional burden placed on the Examiner. This is not found persuasive for the following reasons:

Under MPEP § 803, there are two criteria for a proper requirement for restriction between patentably distinct inventions:

(A) The inventions must be independent (see MPEP § 8702.01, 806.04, 808.01) **or** distinct as claimed (see MPEP § 806.05- §806.05(I)): and

(B) There must be a serious burden on the examiner if restriction is required (see MPEP § 803.02, § 806.04(a)- 806.04(I), § 808.01(a), and § 808.02).

The term "distinct" means that two or more subjects as disclosed are related, for example, as combination and part (subcombination) thereof, product and process of use, process and product made, etc., but are capable of separate manufacture, use or sale as claimed, and are

patentable (novel and unobvious) over each other (though they may each be unpatentable because of the prior art). It will be noted that in this definition the term related is used as an alternative for dependent in referring to subjects other than independent subjects (MPEP § 802.01). Where inventions are related as disclosed but are distinct as claimed, restriction may be proper (MPEP § 806(B)).

Consistent with current patent practice, a serious search burden may be established by (A) separate classification thereof: (B) a separate status in the art when they are classifiable together: (C) a different field of search. These criteria were met in the above restriction. Further, a search is directed not only to art which would be anticipatory, but also to art that would render the invention obvious. Thus, the five groups require divergent searches, and to search all five inventions would be burdensome. Therefore, the restriction is maintained and made final. However, Applicant is reminded that should the claims of Group I be found allowable, Applicant may request that claims directed to using the products of Group I be rejoined to Group I, with the understanding that the method claims are commensurate in scope with the claims of Group I and also that no new issues are raised under 35 U.S.C. 112.

Withdrawn Rejections:

3. The rejection of Claims 1-3 under 35 USC 102(b), as put forth on page 17 of Paper 17 (12/09/94), as being anticipated by Kwon et al. PNAS 86:1963, 1988, is withdrawn in view of Applicants persuasive arguments in Paper 36, 4/6/00 and in view of further consideration.

The basis of the original rejection is that the parent application (07/267,577 filed 11/7/88) of the instant application fails to teach the utility of the 4-1BB cDNA and that, therefore, applicant is not entitled to the 1988 priority date - thus Kwon et al. is applicable as prior art against the instant application.

Applicant persuasively argues that the 07/267,577 does teach the utility of the 4-1BB cDNA. In particular, Applicant points out that the 07/267,577 discloses that 4-1BB mRNA expression in T-cells is induced by Conanavalin A or TCR stimulation; the 4-1BB cDNA would thus be useful as a probe for T-cell activation (see page 5 of Paper 36 and page 18 of 07/267,577). The examiner agrees, and adds that one of skill in the art would readily appreciate that the 4-1BB cDNA would be useful as a marker for T-cell activation based solely on the guidance provided by the 07/267,577 application. Furthermore, consistent with current examination guidelines, the examiner finds that the proposed use of the 4-1BB cDNA (as a marker of T-cell activation) to be a specific, substantial, and credible utility.

4. The rejection of claims 1-3 in Paper 17 and additionally of claim 22 in Paper 20 under 35 USC 101 for lacking a patentable utility, is withdrawn for the reasons put forth above.

5. The rejection of claims 1-3 in Paper 17 and in Paper 20 under 35 USC 112, first paragraph, for lacking an enabling disclosure an adequate utility, is withdrawn for the reasons put forth above.

Maintained Rejections:

6. The rejection of claims 1 and 22 in Papers 20 (page 4) and 17 (page 10) under 35 USC 112, first paragraph, for lacking an enabling disclosure of DNAs useful as probes or encoding derivatives of the disclosed 4-1BB polypeptide is maintained. Applicant is notified that the part of the rejection of claim 22 under 35 USC 112, first paragraph, for lacking an enabling disclosure of an adequate utility, is withdrawn for the reasons put forth above. However, as put forth in the previous office action, it is not clear what regions of sequence are adequate for use as a probe as required by claim 22 (see page 4 of Paper 20). Applicant's arguments put forth in Paper 36 do not appear to address this concern. Applicant is reminded that claim 22 requires that fragments of the DNA hybridize specifically to a [polynucleotide] having a nucleic acid sequence as put forth in Figure 2. The specification has not put forth which fragments, nor under what hybridization conditions such fragments will specifically hybridize to a [polynucleotide] having a nucleic acid sequence as put forth in Figure 2. Additionally, claim 1 encompasses any polypeptide that can be considered to be a murine protein 4-1BB, which includes amino acid sequence variants, both naturally occurring and artificially constructed, of the polypeptide set forth in SEQ ID NO: 2. As indicated in the previous office action, the specification has not taught which variants could be made or isolated which have the same biological properties of the instant protein.

New rejections:

7. Claims 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 28-30 require a polypeptide comprising the extracellular domain of the amino acid sequence shown in figures 2a and 2b, yet the specification has not put forth which amino acids constitute the extracelluar domain. Furthermore, the claims require a soluble 4-1BB protein, yet the specification has not put forth which amino acids are encompassed by a soluble 4-1BB protein. Therefore, the metes and bounds of the claims cannot be determined.

8. Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. This is a CPA of applicant's earlier Application No.08012269. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in

this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

No Claims are allowed

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Brannock, Ph.D., whose telephone number is (703) 306-5876. The examiner can normally be reached on Mondays through Fridays from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564.

Official papers filed by fax should be directed to (703) 308-4242. Faxed draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Elizabeth C. Kemmerer

ELIZABETH KEMMERER
PRIMARY EXAMINER

MB

September 27, 2000